

# Notice of Allowability

Application No.

09/602,187

Examiner

Monique M Wills

Applicant(s)

PEDICINI

Art Unit

1746

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 3/18/04.
2. ☒ The allowed claim(s) is/are 4,7-10,14,17-20 and 44-55.
3. ☒ The drawings filed on 12 June 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

- |   |   |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                       |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance              |
|   | 9. <input type="checkbox"/> Other _____.  |

#### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Chris Nguyen on June 8, 2004.

The application has been amended as follows:

Claims 1-3, 11-13 & 21-43 have been cancelled.

#### REASONS FOR ALLOWANCE

Claims 4 & 14 are allowable over the prior art of record, because the prior art is silent to a system comprising a resilient ferromagnetic diaphragm formed from a resilient ferromagnetic material, such that the resiliency of said diaphragm returns said diaphragm to the original position when an electrical current no longer passes through a coil.

Claims 7-10 & 17-20 are allowable over the prior art of record because the prior art is silent to a system comprising a pair of contacts in a circuit, one contact being connected to a diaphragm and said contacts being closed when current flow through a coil is less than a predetermined level such that the presence of current flow through the coil greater than a predetermined level moves the diaphragm, breaking the circuit, de-energizing the coil, and allowing the resiliency of the diaphragm to return the diaphragm to the original position and remaking the circuit.

Claims 44-48 & 54-55 are allowable over the prior art of record because the prior art is silent to system comprising a pair of contacts in a circuit, the first contact being connected to an electrically activated diaphragm, and the second contact in contact with the first contact through the diaphragm when the diaphragm is in a first position; wherein electrical current is passed through the diaphragm the current deforms the diaphragm into a second position in which the first electrical contact no longer contacts the second electrical contact through the diaphragm, such that the diaphragm returns to the first position, and movement of the diaphragm provides a flow of air to the air fueled device.

Claims 49-53 are allowable over the prior art of record because the prior art is silent to system comprising a pair of contacts in a circuit, one contact being connected to an electrically activated diaphragm and said contacts being closed when current flow through the electrically activated diaphragm is less than a predetermined level such that the presence of current flow through said diaphragm greater than said predetermined level deforms the diaphragm, breaking the circuit, de-energizing the diaphragm, and allowing the diaphragm to return to the original position and remaking the circuit.

The prior art, such as Witzigreuter et al., U.S. Patent 6,361,294, teaches a ventilation system for a metal air battery comprising: thermoelectric actuators connected in parallel to a control circuit, wherein each are deposited on a diaphragm. When current is applied to the actuators, the diaphragms vibrate due to the differences in thermal expansion from the actuators. See column 11, lines 20-35. The system of Witzigreuter is incapable of performing the functions of the instant claims, because the reference is silent to causing the diaphragm to vibrate by passing current directly through the diaphragm and first and second electrical

contacts being in contact with each other through a single diaphragm. Therefore, the instant claims are patentably distinct from Witzigreuter.

### Conclusion

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Monique Wills whose telephone number is (571) 272-1309. The Examiner can normally be reached on Monday-Friday from 8:30am to 5:00 pm.

If attempts to reach Examiner by telephone are unsuccessful, the Examiner's supervisor, Randy Gulakowski, may be reached at 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have

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questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MW

06/12/04

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